

## Data Brochure: tekmarNet<sup>®</sup>4 Timer 033

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Choose controls to match application

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## Introduction

The tekmarNet<sup>®</sup>4 Timer 033 can be programmed to operate up to four events each day (Wake, Unoccupied, Occupied, and Sleep). When used in a tekmarNet<sup>®</sup>4 system it can operate up to four separate schedules for one system. It can also be used as a stand alone Timer by utilizing the relay contact (either normally closed or normally open).

## Features

- tN4 Communication Compatible
- Up to 4 Programmable Setback Schedules
- Daylight Savings Time
- Batteryless Backup
- 2 or 4 Events Per Schedule
- Backlight
- CSA and C US Approved for use in USA and Canada



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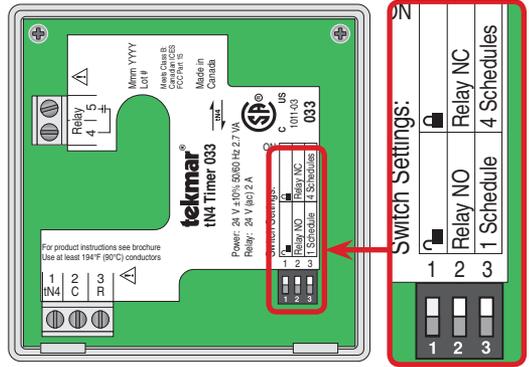
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## Display and Switch Settings

### Switch Settings

#### Lock/Unlock (Switch #1)

- Use the Lock/Unlock switch to lock or unlock the Access Level of the 033.
- To unlock the Access Level, set the switch to the unlocked (Off) position.
- To lock the Access Level, set the switch to the locked (On) position. Once locked, the padlock shows in the bottom right corner of the display except when viewing the current time or date.



#### Relay NO / Relay NC (Switch #2)

The Relay NO / Relay NC switch is used to change the relay from normally open to normally closed. The user can decide how they want the relay to operate in their specific application. Note: The relay will always be OPEN when there is no power present at the device.

#### 1 Schedule / 4 Schedules (Switch #3)

The 1 Schedule/4 Schedule switch selects whether the Timer will host a single schedule, or up to 4 schedules – (4 Schedules is only available on a tekmarNet®4 system).

## Access Levels

The Access Level restricts the number of Menus, Items and Adjustments that can be accessed by the user. The Access Level setting is found in the Miscellaneous (MISC) menu. Select the appropriate access level for the people who work with the Timer on a regular basis.

The 033 has three Access Levels:

- Advanced (ADV): access to all settings
- User (USER): for property owners
- Limited (LTD): limited temperature adjustment

For more information, see the Misc (Miscellaneous) Menu section.

In the following menu tables, the access level the item is visible in is shown in the access column.

### To adjust the Access Level:

1. Set the Unlock / Lock switch to the unlock position. If a tN4 System Control is connected to the 033, the Unlock / Lock switch on the tN4 System Control must be set to the unlock position.
2. Use the Menu button to select the Misc menu.
3. Use the Item button to select the Access menu item.
4. Use the Up or Down button to select the required Access Level.

## Display

<p><b>Menu Field</b> Displays the current menu</p> <p><b>Status Field</b> Displays the current status of the control's inputs, outputs and operation</p>	<p>The diagram shows a digital display with several sections:         <ul style="list-style-type: none"> <li><b>Menu Field:</b> A green box at the top left containing 'VIEW DEV', 'TIME ON OFFSET', and 'MISC: SELECT TYPE MoTuWeThFrSaSuADD'. A blue arrow points from this field to the 'Menu Field' text.</li> <li><b>Status Field:</b> A green box at the bottom left containing 'SCHD' and 'ACCSRC'. A blue arrow points from this field to the 'Status Field' text.</li> <li><b>Item Field:</b> A blue box at the top right containing the number '12' and a warning icon (exclamation mark in a circle). A blue arrow points from this field to the 'Item Field' text.</li> <li><b>Number Field:</b> A blue box at the bottom right containing 'min AM PMhr'. A blue arrow points from this field to the 'Number Field' text.</li> <li><b>Other elements:</b> A central digital display showing '00:00.00', a 'Mode' indicator, a schedule bar with 'Schd Wake UnOcc Sleep Away', and a lock icon with a right-pointing arrow.</li> </ul> </p>	<p><b>Item Field</b> Displays an abbreviated name of the selected item</p> <p><b>Number Field</b> Displays the current value of the selected item</p>
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## Symbols Description

	<b>SCHEDULE MASTER</b> A schedule is in use on this timer.
	<b>tN4 COMMUNICATION</b> Communication is present.
	<b>LOCK</b> The Access Levels are locked. A menu option is visible but not adjustable.
	<b>WARNING</b> An error is present.
<i>Wake Occ</i> <i>UnOcc Sleep</i>	<b>SCHEDULED EVENT</b> Displays the current scheduled event

## User Interface

Use the User Interface available on the Liquid Crystal Display (LCD) to setup and monitor the operation of the Timer. Use the four push buttons below the LCD (Menu, Item, Up, Down) to select settings. As you enter settings, record the settings in the Job Record J033.

### Menu

The menus display in the Menu Field at the left of the LCD. A maximum of six menus are available:

- Time
- Schedule 1
- Schedule 2\*
- Schedule 3\*
- Schedule 4\*
- Miscellaneous

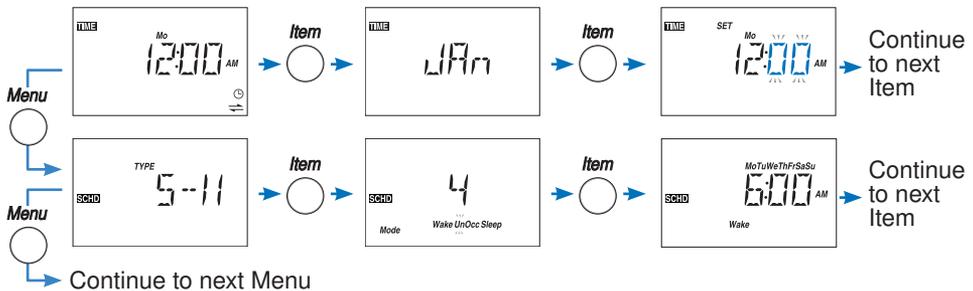
To select a menu, press and release the Menu button.

\* These items are only available if the switch is set to 4 Schedules and the device is connected to a tekmarNet<sup>®</sup>4 system.

### Item

In each menu, a group of items can be selected. The abbreviated name of the selected item displays in the Item field of the LCD display.

- To view the next available item, press and release the Item button.
- To view the previous item, hold down the Item button and press and release the Up button.



## Adjusting a Setting

To adjust a setting:

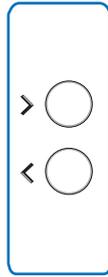
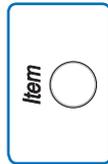
1. Use the Menu button to select the appropriate menu.
2. Use the Item button to select a menu item.
3. Use the Up or Down button to adjust the setting.

### Default Item

After navigating menus, the display reverts back to the default item (Time Clock) after 60 seconds of button inactivity.

# Display Menus

## Time Menu (1 of 3)



The Time menu items set the time clock, day and date.

Item Field	Range	Access	Description
	SUNDAY, MONDAY, TUESDAY, WEDNESDAY, THURSDAY, FRIDAY, SATURDAY Default = MONDAY	LTD USER ADV	<b>CURRENT TIME AND DAY</b> Displays the current time and day of the week. The time and date flash if the time is not set.
	Default = Jan 01 2007	LTD USER ADV	<b>CURRENT DATE</b> Displays the current date. The month is displayed followed by the day and year. <b>Note:</b> This item is only available when Daylight Savings Time (DST) is set to Mode 1 or 2.
	12:00 to :59 Default = 12:00 AM	USER ADV	<b>CLOCK MINUTES</b> Set the minutes.

## TIME MENU

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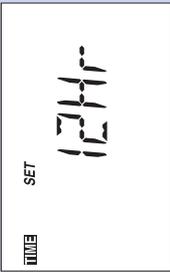
## Time Menu (2 of 3)

Item Field	Range	Access	Description
	<p>12:00 AM to 11:59 PM or 00:00 to 23:59 Default = 12:00 AM</p>	<p>USER ADV</p>	<p><b>CLOCK HOURS</b> Set the hours.</p>
	<p>SUNDAY ... WEDNESDAY ... SATURDAY Default = SUNDAY</p>	<p>USER ADV</p>	<p><b>DAY OF THE WEEK</b> Set the day of the week.</p>
	<p>OFF, 1, 2 Default = OFF</p>	<p>ADV</p>	<p><b>DAYLIGHT SAVINGS TIME</b> Selects whether to use Daylight Savings Time. The time is automatically adjusted if set to mode 1 or 2. <b>Note:</b> See page 15 for a description of DST Modes.</p>
	<p>JAN to DEC Default = JAN</p>	<p>USER ADV</p>	<p><b>MONTH</b> Set the current month of the year. <b>Note:</b> This item is only available when Daylight Savings Time is set to Mode 1 or 2.</p>

## TIME MENU

Continued on next page.

## Time Menu (3 of 3)

Item Field	Range	Access	Description
	01 to 31 (number of days is dependent on month) Default = 01	USER ADV	<b>DAY OF THE MONTH</b> Set the day of the month. <b>Note:</b> This item is only available when Daylight Savings Time is set to Mode 1 or 2.
	2007 to 2255 Default = 2007	USER ADV	<b>YEAR</b> Set the current year. <b>Note:</b> This item is only available when Daylight Savings Time is set to Mode 1 or 2.
	12 hr or 24 hr Default = 12	ADV	<b>MODE</b> Select whether time should be displayed using a 12 or a 24 hour clock.

After the last item, the control returns to the first item in the menu.

## TIME MENU

## Schedule Menu (1 of 6)

The Schedule menu is the same for each of the four schedules. The schedule number is indicated along with the On/Off selection as each Schedule menu is displayed.

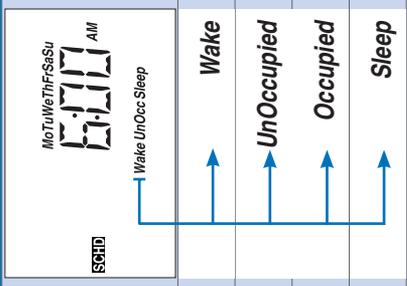
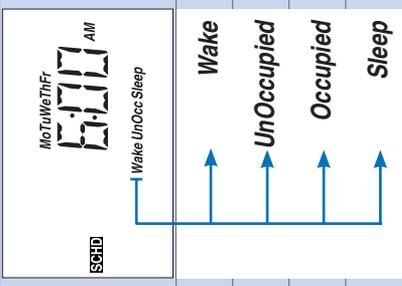


Item Field	Range	Access	Description
	ON, OFF Default = On	LTD USER ADV	<b>SCHEDULE (1, 2, 3, 4)</b> Selects if schedule 1 is on or off. <b>Note:</b> This item is only adjustable in the ADV access level.
	24 hr, 5-2, 5-11, 7dAY Default = 5-11	USER ADV	<b>SCHEDULE TYPE</b> Select the type of schedule. <b>Note:</b> This item is only available when the Schedule is set to On.
	2 (Occ, UnOcc), 4 (Wake, UnOcc, Occ, Sleep) Default = 4	USER ADV	<b>SCHEDULE MODE</b> Select the number of events per day <b>Note:</b> This item is only available when the Schedule is set to On.

## SCHEDULE MENU

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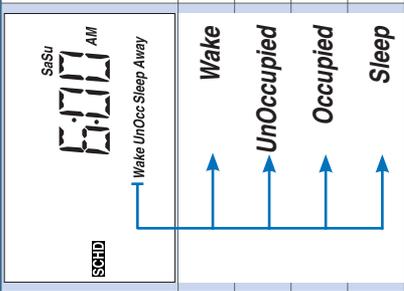
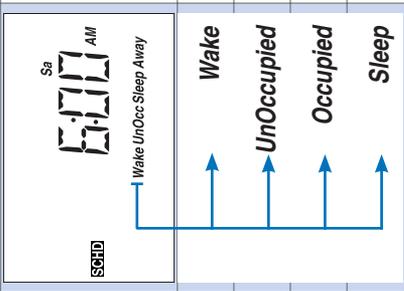
## Schedule Menu (2 of 6)

Item Field	Range	Access	Description
	<p>--:-- to 11:50 PM or --:-- to 23:50</p> <p>Default = 6:00 AM Default = 8:00 AM Default = 6:00 PM Default = 10:00 PM</p>	<p>USER ADV</p>	<p><b>ALL DAYS OF THE WEEK</b> Select the times for the scheduled events. <b>Note:</b> This item is only available when the Schedule is set to On and the Schedule Type is set to 24 hr.</p>
	<p>--:-- to 11:50 PM or --:-- to 23:50</p> <p>Default = 6:00 AM Default = 8:00AM Default = 6:00 PM Default = 10:00 PM</p>	<p>USER ADV</p>	<p><b>MONDAY THROUGH FRIDAY</b> Select the time for the scheduled events. <b>Note:</b> This item is only available when Schedule is set to On and Schedule Type is set to 5-2 or 5-11.</p>

## SCHEDULE MENU

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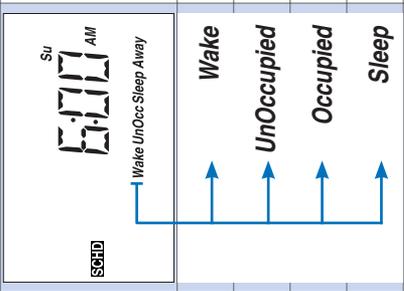
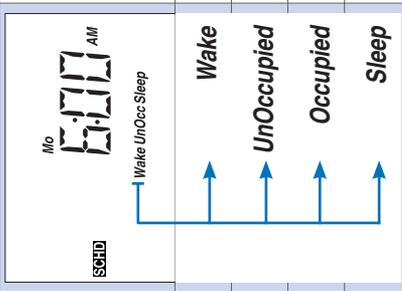
# Schedule Menu (3 of 6)

Item Field	Range	Access	Description
	<p>--:-- to 11:50 PM or --:-- to 23:50</p> <p>Default = 6:00 AM Default = 8:00AM Default = 6:00 PM Default = 10:00 PM</p>	<p>USER ADV</p>	<p><b>SATURDAY AND SUNDAY</b> Select the times for the scheduled events. <b>Note:</b> This item is only available when Schedule is set to On and Schedule Type is set to 5-2.</p>
	<p>--:-- to 11:50 PM or --:-- to 23:50</p> <p>Default = 6:00 AM Default = 8:00AM Default = 6:00 PM Default = 10:00 PM</p>	<p>USER ADV</p>	<p><b>SATURDAY</b> Select the times for the scheduled events. <b>Note:</b> This item is only available when Schedule is set to On and Schedule Type is set to 5-11 or 7DAY.</p>

## SCHEDULE MENU

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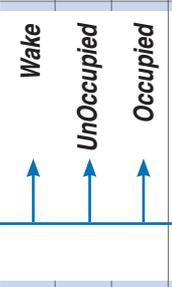
# Schedule Menu (4 of 6)

Item Field	Range	Access	Description
	<p>--:-- to 11:50 PM or --:-- to 23:50</p> <p>Default = 6:00 AM Default = 8:00 AM Default = 6:00 PM Default = 10:00 PM</p>	<p>USER ADV</p>	<p><b>SUNDAY</b> Select the times for the scheduled events. <b>Note:</b> This item is only available when Schedule is set to On and Schedule Type is set to 5-11 or 7DAY.</p>
	<p>--:-- to 11:50 PM or --:-- to 23:50</p> <p>Default = 6:00 AM Default = 8:00 AM Default = 6:00 PM Default = 10:00 PM</p>	<p>USER ADV</p>	<p><b>MONDAY</b> Select the times for the scheduled events. <b>Note:</b> This item is only available when Schedule is set to On and Schedule Type is set to 7DAY.</p>

## SCHEDULE MENU

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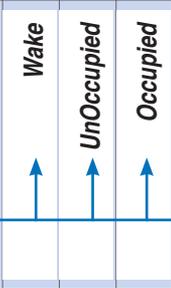
# Schedule Menu (5 of 6)

Item Field	Range	Access	Description
	<p>--:-- to 11:50 PM or --:-- to 23:50</p> <p>Default = 6:00 AM Default = 8:00 AM Default = 6:00 PM Default = 10:00 PM</p>	<p>USER ADV</p>	<p><b>TUESDAY</b> Select the times for the scheduled events. <b>Note:</b> This item is only available when Schedule is set to On and Schedule Type is set to 7DAY.</p>
	<p>--:-- to 11:50 PM or --:-- to 23:50</p> <p>Default = 6:00 AM Default = 8:00 AM Default = 6:00 PM Default = 10:00 PM</p>	<p>USER ADV</p>	<p><b>WEDNESDAY</b> Select the times for the scheduled events. <b>Note:</b> This item is only available when Schedule is set to On and Schedule Type is set to 7DAY.</p>

## SCHEDULE MENU

Continued on next page.

## Schedule Menu (6 of 6)

Item Field	Range	Access	Description
	<p>--:-- to 11:50 PM or --:-- to 23:50</p> <p>Default = 6:00 AM Default = 8:00 AM Default = 6:00 PM Default = 10:00 PM</p>	<p>USER ADV</p>	<p><b>THURSDAY</b> Select the times for the scheduled events. <b>Note:</b> This item is only available when Schedule is set to On and Schedule Type is set to 7DAY.</p>
	<p>--:-- to 11:50 PM or --:-- to 23:50</p> <p>Default = 6:00 AM Default = 8:00 AM Default = 6:00 PM Default = 10:00 PM</p>	<p>USER ADV</p>	<p><b>FRIDAY</b> Select the times for the scheduled events. <b>Note:</b> This item is only available when Schedule is set to On and Schedule Type is set to 7DAY.</p>

## SCHEDULE MENU

After the last item, the control returns to the first item in the menu.

## Misc (Miscellaneous) Menu (1 of 1)



The Miscellaneous menu items set display and control options such as access level and temperature units.

Item Field	Range	Access	Description
	LTD, USER, ADV Default = USER	LTD USER ADV	<b>ACCESS LEVEL</b> The access level of the Timer. The access column shows which items are visible in each access level. <b>Note:</b> This item is only available when the Lock/Unlock switch on the Timer and the tN4 system control are set to Unlock.
	ON, TMPY, OFF Default = TMPY	USER ADV	<b>BACKLIGHT</b> Select whether the backlight displays permanently, temporarily, or is off. The temporary backlight lasts for 30 seconds.
	Schedule 1, 2, 3, or 4	ADV	<b>RELAY SOURCE SCHEDULE</b> Select which schedule the relay will follow. <b>Note:</b> This item is only available when the 1 Schedule / 4 Schedule Switch is set to 4 Schedules and the device is on a tekmarNet <sup>®</sup> 4 system.
	033, Software Version	LTD USER ADV	<b>TYPE</b> Product number of this Timer. Hold the Up button to view the software version.

## MISC MENU

After the last item, the control returns to the first item in the menu.

# Timer Operation

## General Operation

The Timer has an internal relay contact that allows it to be used with non-tN4 controls. This relay contact turns on and off according to the schedule programmed by the user and the switch located on the back of the Timer. (**Note:** Only one schedule is available when not on a tN4 system.)

When this Timer is connected to a tN4 system, it provides the network with the capability to have four individual master schedules. To turn a schedule on, go to the desired schedule menu (Schedule 1, Schedule 2, Schedule 3, Schedule 4) and program it following the instructions in the "Setting the Schedule" section. In the case of a power loss, all settings will be stored, however, the current time and date will only be stored for up to four hours.

The relay contact can be set to follow one of the four schedule masters when installed on a tN4 system.

If the switch is set to **Relay NO** (normally open), then the contact is open during an occupied (Occupied, Wake) event and is closed during an unoccupied (Unoccupied, Sleep) event. If the Timer is to be used in conjunction with a stand alone tekmar reset control (non-tN4), the switch must be set to the **Relay NO** setting.

If the switch is set to **Relay NC** (normally closed), then the contact is closed during an occupied event and is open during an unoccupied event. If there is no power present at the Timer then the relay will always be in the open position, regardless of the switch setting.

## Time Clock

The Timer has a built-in time clock to allow the Timer to operate the schedules. A battery backup allows the Timer to keep time for up to 4 hours without power. The Timer display will revert to the Time Clock display after 60 seconds of button inactivity. The time clock supports automatic adjustment for Daylight Saving Time (DST) once the day, month, and year are entered. Use the Time menu to set the correct time, day, month, and year if DST is selected.

### Daylight Savings Time Modes

Mode	DST Start	DST End
1	1st Sunday in April	Last Sunday in October
2	2nd Sunday in March	1st Sunday in November

## Setting the Schedule

To provide greater energy savings, you can operate a tN4 Control System on up to four separate programmable schedules. The schedules are stored in memory and are not affected by a loss of power to the Timer. A single thermostat zone, or multiple devices on the tN4 system can be assigned to follow one of the four schedules this Timer is capable of operating.

### Master Schedule

If the Timer is connected to other tN4 thermostats or system controls, then the Timer can operate up to four different master schedules. Master schedules simplify installation since one master schedule may be used by multiple devices. Schedule 1 corresponds to Master Schedule 1 (MST1), Schedule 2 corresponds to Master Schedule 2 (MST2), and so on up to Master Schedule 4 (MST4). If more than one schedule is required on the Timer, make sure switch setting 3 is set to “4 Schedules” instead of “1 Schedule”. Then, in order to turn on a Master Schedule, go to the Schedule 1, 2, 3, or 4 menus and set the desired schedule to “On”. Follow the instructions below to set the schedule.

### Schedule Types

The schedule type determines when the schedule repeats itself. This Timer includes four schedule types:

- 24 Hour: Repeats every 24 hours.
- 5-2: Repeats on a weekly basis. However, it breaks the week into the weekend and weekdays. This reduces the amount of schedule event settings.
- 5-11: Repeats on a weekly basis. However, it breaks the week into Saturday and Sunday followed by the weekdays. This reduces the amount of schedule event settings.
- 7Day: Repeats on a weekly basis and allows for separate event times for each day.

Schedule Type				
Day	24 Hour	5-2	5-11	7 day
Sa	•	•	•	•
Su			•	•
Mo		•	•	•
Tu				•
We				•
Th				•
Fr				•

## Schedule Mode

The schedule mode can have either 4 or 2 events per day. An event is a time at which a thermostat changes the set temperature. The event time can be set to the nearest 10 minutes. If you wish to have the Timer skip the event, enter "--:--" as the time. The "--:--" time is found between 11:50 PM and 12:00 AM. See the table, Schedule Mode, for more details regarding types of events. To follow a master schedule:

1. Assign a thermostat to follow one of the Timer's schedules by selecting setback on one of the switches, or programming the heat or cool schedule in the Schedule Menu to Member (Mbr) 1 to 4. (This is done on the thermostat).

Schedule Mode	Event	24Hr	Sat	Sun	Mon	Tue	Wed	Thu	Fri
4 events per day	Wake	6:00 AM							
	Unoccupied	8:00 AM							
	Occupied	6:00 PM							
	Sleep	10:00 PM							
or									
2 events per day	Occupied	6:00 AM							
	Unoccupied	10:00 PM							

## Programming the Relay

This is only applicable if switch 3 is set to “4 Schedules” and the Timer is connected to a tekmarNet®4 system.

The relay contact on the back can be programmed to follow one of the four schedules available in the Timer. The schedule must first be turned to “On” before the relay contact can be programmed to follow it. When the schedule is in the “Wake” or “Occupied” events, the relay will be in the normal state. When the schedule is in the “Unoccupied” or “Sleep” events, the relay will be in the non-normal state, which can be programmed via switch 2 on the back of the Timer.

- Locate the Relay Schedule in the Misc menu (Must be in the “User” or “Adv” access level) to program which schedule the relay will follow.

## Backlight

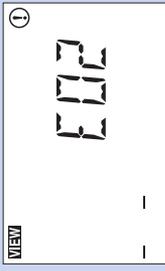
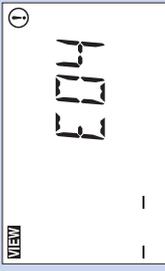
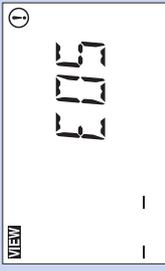
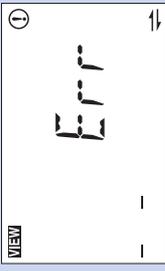
Use the Timer’s backlight to increase the visibility of the display. The backlight can be set to On, Temporary, or Off. If On is selected, the backlight remains permanently on. If Temporary is selected, the backlight comes on for 30 seconds when a button is pressed. If Off is selected, the backlight remains permanently off. By default, the backlight is set to Temporary.

- Locate the Backlite setting in the Misc menu.

## Error Messages

If the warning symbol (flashing circle with exclamation mark) is visible on screen, this indicates that there is an error somewhere in the system. To view the error message, you must first put the control into the Advanced access level, then press the Menu button until the View Menu is displayed.

## Error Messages (1 of 1)

Error Message	Description
 <p>VIEW</p> <p>— —</p>	<p><b>TIME ERROR</b>                      The Timer failed to read the Time menu settings from memory and has reloaded the factory default settings. The Timer continues to operate while displaying this error.  <b>Note:</b> To clear the error, the access level must be set to Advanced before checking all the settings in the Time menu.</p>
 <p>VIEW</p> <p>— —</p>	<p><b>SCHEDULE ERROR</b>                      The Timer failed to read the Schedule menu settings from memory and has reloaded the factory default settings. The Timer continues to operate while displaying this error.  <b>Note:</b> To clear the error, the access level must be set to User or Advanced before checking all the settings in the Schedule menu.</p>
 <p>VIEW</p> <p>— —</p>	<p><b>MISCELLANEOUS ERROR</b>                      The Timer failed to read the Miscellaneous menu settings from memory and has reloaded the factory default settings.  <b>Note:</b> To clear the error, the access level must be set to Advanced before checking all the settings in the Miscellaneous menu.</p>
 <p>VIEW</p> <p>— —</p>	<p><b>tN4 BUS ERROR</b>                      The tN4 communication bus has either an open or a short circuit. The result is that there is no communication. Check for loose wires. Check for short circuits between the tN4 and C wires. Check for correct polarity between the C and R wires. If the timer is intentionally removed from the tN4 bus, press the up and down buttons together to clear the error message.</p>
 <p>VIEW DEV</p> <p>— —</p>	<p><b>DEVICE LIMIT</b>                      You have installed more than 24 devices (thermostats, mixing expansion modules) on the tN4 bus. You must remove the additional devices and move them to a different bus if possible.</p>

## Cleaning the Timer

The Timer's exterior can be cleaned using a damp cloth. Moisten the cloth with water and wring out prior to wiping the timer. Do not use solvents or cleaning solutions.

## Limited Warranty and Product Return Procedure

**Limited Warranty** *The liability of tekmar under this warranty is limited. The Purchaser, by taking receipt of any tekmar product ("Product"), acknowledges the terms of the Limited Warranty in effect at the time of such Product sale and acknowledges that it has read and understands same.*

The tekmar Limited Warranty to the Purchaser on the Products sold hereunder is a manufacturer's pass-through warranty which the Purchaser is authorized to pass through to its customers. Under the Limited Warranty, each tekmar Product is warranted against defects in workmanship and materials if the Product is installed and used in compliance with tekmar's instructions, ordinary wear and tear excepted. The pass-through warranty period is for a period of twenty-four (24) months from the production date if the Product is not installed during that period, or twelve (12) months from the documented date of installation if installed within twenty-four (24) months from the production date.

The liability of tekmar under the Limited Warranty shall be limited to, at tekmar's sole discretion: the cost of parts and labor provided by tekmar to repair defects in materials and / or workmanship of the defective product; or to the exchange of the defective product for a warranty replacement product; or to the granting of credit limited to the original cost of the defective product, and such repair, exchange or credit shall be the sole remedy available from tekmar, and, without limiting the foregoing in any way, tekmar is not responsible, in contract, tort or strict product liability, for any other losses, costs, expenses, inconveniences, or damages, whether direct, indirect, special, secondary, incidental or consequential, arising from ownership or use of the product, or from defects in workmanship or materials, including any liability for fundamental breach of contract.

The pass-through Limited Warranty applies only to those defective Products returned to tekmar during the warranty period. This Limited Warranty does not cover the cost of the parts or labor to remove or transport the defective Product, or to reinstall the repaired or replacement Product, all such costs and expenses being subject to Purchaser's agreement and warranty with its customers.

Any representations or warranties about the Products made by Purchaser to its customers which are different from or in excess of the tekmar Limited Warranty are the Purchaser's sole responsibility and obligation. Purchaser shall indemnify and hold tekmar harmless from and against any and all claims, liabilities and damages of any kind or nature which arise out of or are related to any such representations or warranties by Purchaser to its customers.

The pass-through Limited Warranty does not apply if the returned Product has been damaged by negligence by persons other than tekmar, accident, fire, Act of God, abuse or misuse; or has been damaged by modifications, alterations or attachments made subsequent to purchase which have not been authorized by tekmar; or if the Product was not installed in compliance with tekmar's instructions and / or the local codes and ordinances; or if due to defective installation of the Product; or if the Product was not used in compliance with tekmar's instructions.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, WHICH THE GOVERNING LAW ALLOWS PARTIES TO CONTRACTUALLY EXCLUDE, INCLUDING, WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, DURABILITY OR DESCRIPTION OF THE PRODUCT, ITS NON-INFRINGEMENT OF ANY RELEVANT PATENTS OR TRADEMARKS, AND ITS COMPLIANCE WITH OR NON-VIOLATION OF ANY APPLICABLE ENVIRONMENTAL, HEALTH OR SAFETY LEGISLATION; THE TERM OF ANY OTHER WARRANTY NOT HEREBY CONTRACTUALLY EXCLUDED IS LIMITED SUCH THAT IT SHALL NOT EXTEND BEYOND TWENTY-FOUR (24) MONTHS FROM THE PRODUCTION DATE, TO THE EXTENT THAT SUCH LIMITATION IS ALLOWED BY THE GOVERNING LAW.

**Product Warranty Return Procedure** All Products that are believed to have defects in workmanship or materials must be returned, together with a written description of the defect, to the tekmar Representative assigned to the territory in which such Product is located. If tekmar receives an inquiry from someone other than a tekmar Representative, including an inquiry from Purchaser (if not a tekmar Representative) or Purchaser's customers, regarding a potential warranty claim, tekmar's sole obligation shall be to provide the address and other contact information regarding the appropriate Representative.



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